

REMARKS/ARGUMENTS

Claims 26-28, 31-33, and 38-50 are active in this application. Support for the amendment to Claim 26 is found in the specification on page 8, lines 11-19. No new matter is believed to have been added by submission of this amendment. The rejection pertaining to Claim 34 under 35 U.S.C. § 112, second paragraph is no longer applicable since Claim 34 has been cancelled.

Applicants thank the Examiner for withdrawing all prior rejections. With respect to the new rejections raised in the Office Action focusing primarily on U.S. Patent No. 5,105,310 (“Dickey”) and with Austin, Machal, Iida, and/or Bright, the rejections are untenable because Dickey taken alone or in combination with the other cited publications fail to describe or suggest the transparent substrate as claimed. Specifically, Dickey and/or Austin, Machal, Iida, and Bright do not describe the claimed transparent substrate which includes at least one high-index multilayer having a refractive index value higher than 1.9 and lower than 2.45 and at least one low-index layer having a refractive index of from 1.30 to 1.65 are arranged such that “the high-index multilayer is positioned further from the transparent substrate relative to a layer having a refractive index lower than the titanium oxide layer.” (see amended Claim 26 submitted herein). As discussed in the specification on page 8, by arranging the high-index multilayer further from the transparent substrate, the stability of the appearance in reflection is particularly good (lines 11-19, page 8).

Dickey describes an anti-reflection coating generally containing five layers on top of a substrate (see Figure 2). One specific arrangement of this five layered anti-reflection coating is described in column 6, lines 36-44 and includes silicone dioxide, titanium dioxide, zinc oxide, silicone dioxide, and titanium dioxide as layers 26, 28, 30, 32 and 34 in Figure 2. Dickey also describes that this five layered system “may be modified by adding one or more

layers to accommodate different materials (see column 5, lines 53-55). In column 8, lines 4-6 Dickey states “that acceptable performance may be realized with a layer system wherein the major portion of the high refractive index material is a material such as tin oxide or zinc oxide. Such materials may have sputtering rates ten to fifteen times higher than a material such as titanium dioxide.”

In column 8, lines 64-65, Dickey describes replacing the third layer (which in Figure 2 and in column 6 is zinc oxide) with two sub-layers (labeled 30A and 30B in Figure 6). However, Dickey’s only examples of this two sub-layer structure includes zirconium oxide and zinc oxide as those layers (see column 9, Table 8). Nowhere is there a disclosure in Dickey for the arrangement for the trilayer as in the current set of claims. Nonetheless, the Examiner believes that it would have been obvious to insert a tin oxide layer between two titanium oxide layers to form a trilayer in view of the advantageous deposition rate of tin oxide versus titanium oxide (see column 8, lines 4-6).

First, the Examiner’s characterization of what Dickey suggests is misguided. Contrary to the conclusion reached by the Office (page 3 of the Office Action), Dickey is not stating the “crux of the invention” in col. 8 but merely prophetic possibilities, note Dickey’s use of the word “may” throughout this section of the cited disclosure. Certainly, the disclosure in col. 8 of Dickey does not suggest for the inclusion of a specific tri-layer as claimed. Furthermore, Dickey does not provide any description for the claimed arrangement in which the multilayer stack on top of the transparent substrate also includes the tri-layer specified in Claim 26 with the further requirement of the position of the high-index multilayer relative to the transparent substrate. There simply is no reason whatsoever that Dickey would be modified as alleged by the Office, absent the Office’s hindsight reconstruction of the prior art

because clearly Dickey provides no suggestion for the alleged combination that is the basis for the rejection.

Accordingly, the claimed invention would not have been obvious in view of Dickey and as such withdrawal of the rejection of Claims 26-28, 31, 34, 38-39, 44-45, and 48-50 under 35 U.S.C. § 103(a) is requested.

Further, the rejections of Claim 32 based on the combination of Dickey with Austin or Machol; Claims 33 and 39-46 based on the combination of Dickey with Iida; and Claims 39-40, 44 and 46-47 based on the combination of Dickey with Bright are not applicable to the claims for the same reasons as explained above pertaining to Dickey alone. In particular, it is noted that:

Machol describes multilayered antireflection films wherein metal oxide dielectric films can generally be doped by conductive materials (see col. 6, lines 36-46) to render the film conductive. Machol also provides a general list of materials used for coatings among these aluminum oxyfluoride and magnesium oxyfluorides are described (col. 4, line 58). Austin also describes multilayer antireflection layer comprising at least eight layers wherein adjoining layers alternate between high and low refractive index materials (see Abstract). Among the a laundry list of materials for the low index materials, Austin also includes aluminum oxyfluoride and others (see col. 8, lines 59-64).

However, the combination of Dickey with Machol or Austin fails to suggest the claimed arrangement in which the multilayer stack on top of the transparent substrate also includes the tri-layer specified in Claim 26 with the further requirement of the position of the high-index multilayer relative to the transparent substrate. Accordingly, withdrawal of the rejection of Claim 32 is requested.

Iida describes the production of an infrared *reflector* utilizing a multilayer stack (see Abstract). Thus, Iida describes an article that is clearly different from the claimed transparent substrate which comprises an *anti-reflection* coating and is inapplicable to the claims. Furthermore, contrary to the allegation stressed in the Office Action, but for the pending claims to guide the picking and choosing of certain disclosures in Dickey and Iida, one would not have combined these two disclosures because each relates to specific arrangement and selection of materials directed to a particular desired outcome and as such are limited to each of their unique disclosures. However, even in combination Dickey with Iida fail to suggest the claimed arrangement in which the multilayer stack on top of the transparent substrate also includes the tri-layer specified in Claim 26 with the further requirement of the position of the high-index multilayer relative to the transparent substrate. Accordingly, withdrawal of the rejection of Claims 33 and 39-46 is requested.

The combination of Dickey and Bright also fails to describe or suggest the claimed arrangement in which the multilayer stack on top of the transparent substrate also includes the tri-layer specified in Claim 26 with the further requirement of the position of the high-index multilayer relative to the transparent substrate. Accordingly, this combination of publication also cannot suggest the glazing comprising the transparent substrate of claim 26. Withdrawal of the rejection of Claims 39-40, 44, and 46-47 is also requested.

Application No. 09/761,765  
Reply to Office Action of April 6, 2005

Finally, Applicants request allowance of Claims 26-28, 31-33 and 38-50.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



---

Jean-Paul Lavalleye  
Attorney of Record  
Registration No. 31,451

Customer Number  
**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 06/04)

Daniel J. Pereira, Ph.D.  
Registration No. 45,518